

CALIFORNIA. ~~STATE~~ BOARD OF HEALTH.

MONTHLY BULLETIN.

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STATE BOARD OF HEALTH.

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COLLIER'S AND PLAGUE.

In a recent issue "Collier's Weekly" published the following editorial:

DANGER.

The United States is threatened by the bubonic plague. This statement, abrupt and alarming, is one which must be made. Introduced about 10 years ago, the plague was confined to one district of San Francisco until the earthquake. Infected rats were then scattered through the city and human cases developed in other districts. The San Franciscans began a campaign, which has continued and is satisfactory. Isolated cases occurred also in other cities about the bay. The total number of cases has much increased, and whites are now attacked, whereas before the fire it was almost entirely Chinese and Japanese. A very large percentage die. One most serious aspect of this situation, moreover, has developed in the last two years. Plague has been discovered in the *ground squirrels* about the bay. Now every effort is being made in the infected district to conceal the facts. This is folly filled with peril. Mistaken business calculations led Oakland, which should be one of the most active cities to combat the plague, to refuse appropriations for that purpose. The danger is one which can be controlled if it is recognized. The serious menace is caused by the shortsighted notion that a business advantage is to be gained by concealment. If the infected districts will not do their work properly, sooner or later the whole United States must pay, and pay a price too terrible to consider. Lies will not help. Only sound and thorough sanitary measures may save this land. California can check the danger now. If she fails, she may later be quarantined by her sister states.

There is something of truth and much of falsehood in this editorial, and shows to our mind a gross and unnecessary ignorance of the situation. It is true that the United States is threatened with plague, but not from California. Plague on the Atlantic and Gulf coasts will come from nearer infected places which have direct water communication.

The part which seems almost malicious in its statements is where it says: "Now every effort is being made in the infected district to conceal the facts * * *." Every person at all well posted in the matter knows that this is basely false. Not a case of plague has occurred in California in the past five years that has not been promptly and authoritatively published by the United States and also the State

authorities, and in no case have the local authorities denied its existence. Individual men have denied the diagnosis, just as some deny the existence of disease of any kind. Not only has it not been denied but every infected town has taken up the work when notified of the existence of the disease, and Oakland, which is singled out for attack, spent \$65,000 in destroying rats, and other plague measures.

Never in the history of plague eradication has better work been done than in California, as results show, and no threat of quarantine is heard from sanitarians in other states.

Any disposition to hide cases, deny its existence, or minimize the danger should be frowned down and exposed, but to exaggerate the danger and unjustly accuse the infected localities of basely neglecting their duty and endangering the whole United States is equally as bad. There is plenty of opportunity for eastern journalists to find out the exact truth if they choose, but such editorials in leading publications show a neglect, to put it mildly, of the opportunity.

CALIFORNIA PUBLIC HEALTH ASSOCIATION.

The next meeting of the California Public Health Association will be held in Oakland, November 21, 1908, at 10:00 A. M., probably in the Chabot Observatory, between 10th, 11th, Jefferson and Grove streets. Should anything prevent the meeting there full information will be sent to members, or information can be received at the Oakland Health Office, 14th and Washington streets. The following program has been arranged:

- 10:00 A. M. Public Milk Supply,
Discussion opened by DR. J. J. HOGAN, of Vallejo,
followed by DR. R. A. ARCHIBALD, Oakland.
- 2:00 P. M. School Hygiene,
Discussion opened by DR. ERNEST B. HOAG, Pasadena,
followed by DR. G. F. REINHART, Berkeley.

Any and all members are earnestly urged to be prepared to discuss these most important questions.

- 8:00 P. M. General Sanitation in Relation to Public Health.
This will be a stereopticon lecture by DR. RUPERT
BLUE, United States Public Health and Marine-
Hospital Service.

The meetings are open to the public and as the subjects are all of a decidedly practical nature and such as all are deeply interested in, it is hoped that many will attend.

FRESH AIR.

Vacation time has gone and the earnest work of life is again before us, and fortunate is the one who has spent that vacation in close communion with nature. A month in the open air, sleeping, eating, living with nothing but the trees to shut out the light of sun and stars, will give a good stock of vigor to begin the eleven months' work. How good you feel when you return home; but how close the house is, and you resolve to keep the windows wide open; but a few days in the shop or office, breathing and re-breathing the same polluted air, deadens the sensibility, and the windows which were bravely thrown open gradually come down as the weather gets cooler and the autumn winds blow, until they are closed, or left open by an almost useless space. You spend the day, perhaps necessarily, at work in an atmosphere polluted

by the breath of many others and the dust incident to business, but the home is yours and you can, if you will, have good air.

Pure air is free; perhaps if it were costly we should appreciate it more, and it is the one thing more than all others that stands for perfect health.

As the windows go down and you sleep in closed rooms, colds and pneumonia begin. It isn't the cold and wet of winter that makes colds and lung troubles more prevalent, but the close life in foul, polluted air. To have pure air it is not necessary to be cold, nor is it desirable that we should be. Warmth is necessary, and plenty of clothing should be supplied to maintain it during sleeping hours, and fires by day; but the air must be constantly changing and never allowed to get stale. If this is done conscientiously the buoyant feeling you experienced in the woods will, in a great measure, remain with you, colds and lung troubles stay away, doctor bills be less, but possibly butcher bills higher, for health and vigor are attended by appetite and strength.

TYPHOID FEVER.

The attention of Health Officers is called to the article by Miss Margaret Henderson of the State Hygienic Laboratory on "Examinations for Typhoid Fever." The fact that typhoid fever is so prevalent throughout the State, and results in so many deaths, should prompt every physician to seek the aid of the State Laboratory in making an early diagnosis in all doubtful cases. Typhoid fever is infectious, and the inability to know early the true nature of the disease is responsible for much of its spread. Every Health Officer is urged to send to the Laboratory for a supply of the mailing cases and cards for reports.

DEPARTMENT OF VITAL STATISTICS.

GEORGE D. LESLIE, STATISTICIAN.

VITAL STATISTICS FOR SEPTEMBER.

Births.—The living births registered in September number 2,340, against 2,408 for August. However, for an estimated State population of 2,019,519 the annual birth-rates are the same for each month, 14.1 per 1,000 inhabitants.

The September birth totals were highest for the following counties: Los Angeles, 542; San Francisco, 510; Alameda, 289; Santa Clara, 92; Sacramento, 70; Riverside, 58; San Bernardino, 53; and San Diego, 51.

The births registered in the leading freeholders' charter cities, in September were: San Francisco, 510; Los Angeles, 380; Oakland, 156; Berkeley, 45; Sacramento, 43; Riverside, 39; Fresno and San Diego, each 38; Alameda, 37; Pasadena, 35; San José, 31; and Eureka, 25.

Marriages.—The marriages reported for September number 1,889, against 1,788 for August, and represent an annual marriage-rate of 11.4, as compared with 10.5 for the preceding month.

The September totals were highest for the following counties: Los Angeles, 429; San Francisco, 318; Alameda, 240; Santa Clara, 89; Sacramento, 79; San Diego, 57; and Fresno, 52.

Deaths.—Altogether 2,369 deaths, exclusive of stillbirths, were reported for September, against 2,415 for August. The annual death-rate for September is 14.3 per 1,000 population, as compared with 14.1 for August.

The September death totals were highest for the following counties: Los Angeles, 494; San Francisco, 447; Alameda, 257; Santa Clara, 91; Sacramento, 81; San Diego, 80; San Joaquin, 75; Fresno, 69; San Bernardino, 58; and Sonoma, 55.

Deaths for September were reported as follows for the leading cities: San Francisco, 447; Los Angeles, 313; Oakland, 113; San Diego, 55; Sacramento, 52; Stockton, 41; Berkeley, 37; Pasadena, 32; and San José, 29.

Causes of Death.—In September there were 358 deaths, or 15.1 per cent of all, from various forms of tuberculosis, and 331, or 14.0 per cent, from diseases of the circulatory system, tuberculosis leading heart disease as usual.

Other notable causes of death in September were: Diseases of the digestive system, 282; violence, 263; diseases of the nervous system, 191; diseases of the respiratory system, 163; cancer, 144; and epidemic diseases, 132.

Typhoid fever, as usual, was the leading epidemic disease in September, causing 61 deaths. Next in order were: Diphtheria and croup, 25; malarial fever, 14; whooping-cough, 10; and all others, 22.

Further details appear in the following table, which gives the number of deaths from certain principal causes reported for California in September, as well as the proportions from each cause per 1,000 total deaths for both September and August:

Cause of Death.	Deaths: September.	Proportion per 1,000.	
		September.	August.
ALL CAUSES	2,369	1,000.0	1,000.0
Typhoid fever	61	25.8	24.8
Malarial fever	14	5.9	4.1
Smallpox	1	0.4
Measles	2	0.8	1.7
Scarlet fever	5	2.1	1.2
Whooping-cough	10	4.2	9.5
Diphtheria and croup	25	10.6	5.8
Influenza	2	0.8	0.4
Plague	0.4
Other epidemic diseases	12	5.1	6.2
Tuberculosis of lungs	302	127.5	109.3
Tuberculosis of other organs	56	23.6	19.9
Cancer	144	60.8	55.5
Other general diseases	80	33.8	37.7
Meningitis	35	14.8	16.6
Other diseases of nervous system	156	65.9	74.1
Diseases of circulatory system	331	139.7	127.1
Pneumonia and broncho-pneumonia	112	47.3	40.2
Other diseases of respiratory system	51	21.5	23.2
Diarrhea and enteritis, under 2 years	115	48.5	47.2
Diarrhea and enteritis, 2 years and over	26	11.0	12.4
Other diseases of digestive system	141	59.5	61.7
Bright's disease and nephritis	125	52.8	54.3
Childbirth	23	9.7	13.7
Diseases of early infancy	94	39.7	41.0
Suicide	59	24.9	22.8
Other violence	204	86.1	115.5
All other causes	183	77.2	73.7

Geographic Divisions.—The table below shows the number of deaths from main classes of diseases reported for September for the several geographic divisions of the State, including the metropolitan area, or "Greater San Francisco," in contrast with the rural counties north of Tehachapi:.

Geographic Division.	DEATHS: SEPTEMBER.									
	All Causes	Epidemic Diseases	Tuberculosis (All Forms)	Cancer	Diseases of Nervous System	Diseases of Circulatory System	Diseases of Respiratory System	Diseases of Digestive System	Violence	All Other Causes
THE STATE	2,369	132	358	144	191	331	163	282	263	505
Northern California	305	31	24	19	29	38	18	34	42	70
Coast counties	135	9	12	11	14	22	6	13	10	38
Interior counties	170	22	12	8	15	16	12	21	32	32
Central California	1,330	68	184	79	104	188	104	159	164	280
San Francisco	447	15	61	36	32	70	45	54	46	88
Other bay counties	324	10	42	15	23	56	31	42	29	76
Coast counties	154	6	23	7	15	17	13	13	26	34
Interior counties	405	37	58	21	34	45	15	50	63	82
Southern California	734	33	150	46	58	105	41	89	57	155
Los Angeles	494	24	98	36	39	71	28	54	37	107
Other counties	240	9	52	10	19	34	13	35	20	48
Northern and Central California	1,635	99	208	98	133	226	122	193	206	350
Metropolitan area	771	25	103	51	55	126	76	96	75	164
Rural counties	864	74	105	47	78	100	46	97	131	186

DEPARTMENT OF BACTERIOLOGY.

DR. A. R. WARD, DIRECTOR.

ANOTHER LABORATORY METHOD OF EXAMINATION FOR TYPHOID FEVER.

MARGARET HENDERSON, State Hygienic Laboratory.

The laboratory is now sending out with the typhoid agglutination set a test tube containing bile which is to be inoculated with blood from the patient's ear. Peabody in "The Archives of Internal Medicine" (February, 1908) has an article on "The Diagnosis of Typhoid Fever by Cultures from the Blood of the Ear," in which a description is given of this method of determining the presence of typhoid bacilli. It has long been known that the blood culture is the method by which the earliest diagnosis can be made, inasmuch as the organisms appear to be present in the blood from the very beginning of the constitutional symptoms, and a considerable time before the agglutination reaction is positive.

There are many bacteria which may be the cause of a clinical typhoid fever. The very realization of this fact makes a scientifically accurate method of diagnosis a necessity. The blood culture method naturally commends itself, because an early and absolute diagnosis can be made.

The following instructions accompany the outfit sent out by the Laboratory:

This outfit consists of a piece of aluminum foil, on which to collect blood for making the Widal test and a test tube containing ox bile.

Thoroughly cleanse the skin of the lobe of the ear with clean gauze and alcohol.

Prick the ear rather deeply with a small lancet pointed knife.

Squeeze out the blood and let it run, drop by drop, into the test tube containing the bile, until about two cubic centimeters have been added. Avoid contaminating the tube and the rubber cork during this operation. Do not let the inside of the tube, nor the inside end of the cork, touch anything while the cork is out of the test tube.

After the bile has been inoculated, collect the next four or five drops on the surface of the foil. Let them air dry. When they are dry, fold so as to enclose the drops.

Wrap the test tube in the cotton and put it and the foil back into the container, fill out the card, and mail the outfit to the laboratory.

When the specimen reaches the laboratory, the test tube containing the bile and the blood is put in the incubator for about fifteen hours. At the end of this time the medium shows no distinct gross change. Microscopic examination of a drop of the bile may show the presence of organisms, but, as they are sometimes difficult to see, a transfer of several loopfuls is made to a tube of coagulated blood serum. After from three to five hours of incubation, microscopic examination of the water of condensation shows the presence of motile bacilli. A transfer is then made from the blood serum to agar for a stock culture. Inasmuch as complete sterilization of the skin of the ear is often impossible, a contaminating growth of cocci may be present; but, since the typhoid bacilli grow much more rapidly than these, a transfer from a young blood-serum culture will usually result in a pure stock culture.

“The demonstration of a motile bacillus in the water of condensation of the blood serum can be made in eighteen or nineteen hours at most, and this in itself appears very good evidence of a typhoid paratyphoid infection. In no case was a motile bacillus found which proved on further investigation to be other than the etiologic organism. In order, however, to identify completely the organisms, they have all been shown to decolorize with Gram's stain, grown on glucose agar and litmus milk, and tested for agglutination with the serum of a rabbit immunized to the typhoid bacillus. The agglutination reaction is often difficult to obtain, for the freshly isolated organisms may be at first almost non-agglutinable. After growing them on artificial media for some time, and especially after making a series of cultures at intervals of from twenty-four to forty-eight hours, this resistance seems to disappear and the organisms are much more easily agglutinated.”

The results so far obtained by Peabody and others who have used the same method seem to indicate that the blood culture will give a positive result in typhoid fever during the first week of the disease. The Widal is not likely to be positive until the second week and may appear even later in the disease. In the second week, the blood culture test is sometimes positive and sometimes negative; after the second week, it is likely to be continuously negative. From one or the other method, we are sure to get a positive result in a case of typhoid fever at whatever stage the test is made.

It is extremely desirable to get further data on the time through which the blood culture will give a positive result. For this purpose, we would ask that the physicians sending in cultures for examination be particularly careful in filling out the card accompanying the test outfit. This card carries a blank for the time of duration of the disease, and the more data we can collect on this subject the more valuable the work will be.

EXAMINATIONS MADE IN SEPTEMBER.

Total number of examinations.....	544
Diphtheria	506
Tuberculosis	17
Typhoid	12
Malaria	6
Miscellaneous	3
	— 544

DEPARTMENT OF PURE FOODS AND DRUGS.

PROF. M. E. JAFFA, DIRECTOR.

The United States Department of Agriculture has issued up to date notices of twenty-one (21) judgments, numbers 1 to 21, inclusive, with reference to prosecutions under the Food and Drugs Act of June 30, 1906. A list of these judgments is appended herewith, and any one interested in such matters can obtain copies of the judgments upon application to the Director of the State Food and Drug Laboratory, University of California, Berkeley, California:

- No. 1—Misbranding of apple cider.
- No. 2—Misbranding of molasses.
- No. 3—Misbranding of flour.
- No. 4—Misbranding of coffee.
- No. 5—Misbranding of vanilla extract.
- No. 6—Misbranding of cider.
- No. 7—Misbranding of eggs.
- No. 8—Adulteration of milk (formaldehyde).
- No. 9—Adulteration of milk (water and formaldehyde).
- No. 10—Misbranding of cocain hydrochlorid.
- No. 11—Adulteration of milk (water).
- No. 12—Misbranding of flour (hard spring wheat mixed with durum).
- No. 13—Misbranding of flour (as to place and manner of manufacture).
- No. 14—Misbranding of vanilla extract (imitation colored with caramel).
- No. 15—Adulteration and misbranding of whiskey (neutral spirits artificially colored).
- No. 16—Misbranding of a drug product (sartoin skin food).
- No. 17—Misbranding of flour as to place of manufacture and name of manufacturer).
- No. 18—Misbranding and adulteration of honey.
- No. 19—Misbranding and adulteration of honey.
- No. 20—Misbranding and adulteration of honey.
- No. 21—Misbranding and adulteration of honey.

MISBRANDING OF EGGS.

No. 7 is of particular interest to dealers in this State, and on account of its importance it is considered advisable to quote the notice of judgment in full, to the end that it will prove a warning to dealers and jobbers in eggs in this State.

“In accordance with the provisions of section 4 of the Food and Drugs Act of June 30, 1906, and of regulation 6 of the rules and

regulations for the enforcement of the act, notice is given that on the 3d day of June, 1908, in the police court of the District of Columbia, in a criminal prosecution by the United States against F. Rogerson Company, a corporation, for violation of section 2 of the aforesaid act, in the sale and offer for sale in said district of misbranded eggs, that is to say, eggs contained in cases labeled 'Fresh Eggs,' the said Rogerson Company, defendant, entered a plea of guilty, whereupon the court imposed upon it a fine of \$75."

The facts in the case were as follows:

On December 19, 1907, an inspector of the Department of Agriculture purchased from F. Rogerson Company, 920 Louisiana avenue, Washington, D. C., three dozen eggs, each dozen being contained in paste-board boxes upon which was printed "Fresh Eggs." The eggs were forthwith examined in the Bureau of Chemistry of said Department, and the result disclosed that they were not fresh; that the albumen in some of the eggs clung to the shell membrane; that the size of the air chamber varied to the maximum of one third of the size of the egg, showing a large amount of evaporation; that minute rosette crystals were present in the albumen of each egg, and that large rosette crystals were found in the yolk of each egg. The eggs were therefore misbranded within the meaning of section 8 of the act.

On January 28, 1908, the Secretary of Agriculture accorded F. Rogerson Company a hearing. As there was nothing disclosed at this hearing tending to show any fault or error in the result of the aforesaid examination, the facts were duly reported to the Attorney General and by him to the United States attorney for the District of Columbia, who, on the 29th day of May, 1908, filed an information in the police court of said district alleging the sale of misbranded eggs by said F. Rogerson Company, with the result hereinbefore stated.

WARNING TO MANUFACTURERS OF WORCESTERSHIRE SAUCE.

Several instances have been brought to the attention of the State Board of Health of the manufacturers of Worcestershire sauce, using bottles of another manufacture of the same material, the bottles in question having the names of the manufacturers blown in the glass. Such use of bottles would appear to be in violation of section 5 and subdivision 2 of section 6 of the California Food Act, March 11, 1907.

It is to be hoped that this notice will be sufficient to stop all such violations and obviate the necessity of taking legal steps to accomplish the same end.